

1997-99 Performance Progress Report

For Quarter Ending June 1999

Agency 461

Department of Ecology

Mission

The mission of the Department of Ecology is to protect, preserve and enhance Washington's environment, and promote the wise management of our air, land and water for the benefit of current and future generations

Strategy Prevent Pollution.

Performance Measure

The percentage of core surface water monitoring stations with one or more violations of the state fecal coliform standard.

Fecal coliform, a measure of bacteria from human and animal wastes, is measured at 62 core monitoring stations statewide. Implementation of the new dairy nutrient legislation is expected to provide improved results in this measure over time.*

* Monthly samples are taken at 62 river stations statewide (up from 45 reported previously) and reported annually in February, based on data from the previous water year (October through September).

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	50%		50%				50%	
Actual	49%		38.5%			50%		
Date Measured	9/30/96		9/30/97			9/30/98		

Quarter 1 Comment

Actual data is for the 1996 water year.

Quarter 3 Comment

The fecal coliform trend line has been significantly lowered by changing the monitoring methodology. Prior to the 1997 water year (October 1, 1996 - September 30, 1997) fecal coliform sampling was conducted at 45 variable monitoring stations. This has been changed to 62 consistent locations. The "actual" data is for the 1997 water year.

Quarter 6 Comment

Data for the 1998 water year are available earlier than previously anticipated. Violations of the water quality standard for coliform are up from the previous reporting period (water year 1997). This may be due to the water getting more polluted. It may also be due to the nature of this particular pollutant which shows considerable variability in the field.

Performance Measure

The number of reported releases from underground storage tanks.*

* Federal legislation requires new tank installations by December 1998, which has resulted in an increase in reported releases during this biennium.

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	50	50	50	60	60	60	55	55
Actual	64	46	89	96	117	121	105	33*
Date Measured		12/31/97	3/31/98	6/30/98	9/30/98	7/17/99	7/19/99	7/19/99

Quarter 7 Comment

* Data for this quarter has been collected but not all entered in the program's database. The program expects to have the data entry completed within six months of the report period.

Quarter 8 Comment

* Data for this quarter has been collected but not all entered in the program's database. The program expects to have the data entry completed within six months of the report period.

Performance Measure

Percentage reduction of hazardous waste generation by regulated facilities, compared to a 1990 base year.*

* This measure reflects the statutory goal of the Waste Reduction Act, 70.95C RCW, to reduce the generation of hazardous waste by 50%.

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Estimate	26%				28%			
Actual	26%					37%		
Date Measured	12/31/96					12/31/97		

Quarter 1 Comment This cumulative 26% reduction equates to 67 million pounds less hazardous waste being generated in 1996 than was generated in 1990.

Quarter 5 Comment Because version 2 of TurboWaste (electronic reporting software) was distributed late to the regulated community, companies have been given an extension for submitting their annual reports. Data will be available and reported next quarter.

Quarter 6 Comment This cumulative 37% reduction equates to 95 million pounds less hazardous waste being generated in 1997 than was generated in 1990.

Performance Measure The number of oil spills of 10,000 gallons or more where at least 500 gallons reached water or there was significant environmental damage.
This measure includes petroleum oil spills from all vessel, pipeline, facility, rail and tank truck sources. Washington experienced 4 oil spills of 10,000 gallons or more, 1992 -1996. The number of Actual spills are reported as they occur. Estimates are based on an objective of reducing the 1994 record of one spill per 15 months (0.8 spills per year) to two spills per five years (0.4 spills per year) by 2010 .*

* Large spills which reach water or cause significant environmental damage are included in this data. A 49,000 gallon spill occurred in FY 1997, but was fully contained within a secondary containment berm, and thus did not qualify for this report.

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	0	0	0	0	0	1	0	0
Actual	0	0	0	0	0	0	0	1
Date Measured		12/31/97	3/31/98	6/30/98	9/30/98	12/31/98	3/31/99	6/30/99

Quarter 1 Comment Statistical analysis indicates that Washington should be prepared for 1 major oil spill every 15 months. It is the goal of the Spill Prevention, Preparedness and Response Program to reduce this rate to zero. Ecology will report quarterly on the actual number of major spills that have occurred that quarter.

Quarter 6 Comment The estimated number of spills for this quarter reflects historical trends of significant spills occurring during inclement weather and winter holidays.

Quarter 8 Comment 277,000 gallons of gasoline spilled into Bellingham Creek from the Olympic Pipeline on June 10, 1999, with tragic and costly consequences.

Performance Measure The percentage of large commercial ships (cargo, tanker and fishing vessels) transiting Washington waters that had an accident, equipment failure, or oil spill.

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	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	2.5/100	2.2/100	2.5/100	2.7/100	2.6/100	2.5/100	2.4/100	2.2/100
Actual	2.42/100	2.20/100	2.08/100	1.69/100	1.41/100	1.81/100	1.46/100	1.75/100
Date Measured	3/30/97	12/31/97	3/31/98	6/30/98	9/30/98	12/31/98	3/31/99	6/30/99

Quarter 1 Comment

This data has been corrected from the initial report. Re-evaluation of vessel incidents and the time period reported has resulted in revised figures. There were 34 vessel incidents per 1405 vessel transits during the July through September, 1997 period. This quarter was also marked by increased reporting to the agency by Washington State Ferries.

Quarter 2 Comment

31 vessel incidents per 1411 vessel transits.

Quarter 3 Comment

27 vessel incidents per 1300 vessel transits.

Quarter 4 Comment

23 vessel incidents per 1358 vessel transits.

Quarter 5 Comment

19 vessel incidents per 1343 vessel transits.

Quarter 6 Comment

25 vessel incidents per 1379 vessel transits.

Quarter 7 Comment

19 vessel incidents per 1305 vessel transits.

Quarter 8 Comment

25 vessel incidents per 1432 vessel transits

Strategy

Clean Up Pollution.

Performance Measure

The number of air pollution measurements that exceed federal or state ambient air quality standards.*

* Air pollution measurements are taken hourly or daily (depending on the pollutant being measured) at 105 air monitoring stations statewide. Violations of most ambient air quality standards are determined by statistical averages over one to three years.

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate				3				0
Actual				2				0
Date Measured				6/30/98				6/30/99

Performance Measure

Number of acres of Puget Sound with known contaminated sediments.*

The acreage of known contaminated sediments is expected to be decreased by source control and cleanup actions, and may increase through studies of additional areas. If funding for these activities is continued, these influences are expected to balance in the near term.

* If funding for this activity is eliminated, this data will no longer be available.

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Outcome	Fiscal Year 1998				Fiscal Year 1999			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 8
Estimate	5000			5000				5000
Actual	5083			*				5658
Date Measured	5/31/96							6/30/99

Quarter 4 Comment

* The sediments management standards rule finalization may change the site list significantly, so updating the 1996 Sediment Management Standards Contaminated Sediment Site List for Puget Sound is being postponed until FY 2000.

Quarter 8 Comment

This change reflects findings of 662.4 additional acres contaminated in six urban bays in Puget Sound, and the cleanup of five sediment sites totaling 87.75 acres.

Performance Measure

The number of water bodies not meeting water quality standards criteria statewide. (The federal Clean Water Act Sect. 303d requires a biennial list of water bodies not meeting water quality standards criteria.) The 636 water bodies listed as impaired on the 1998 list comprise 58% of the lakes, streams, rivers and estuaries in Washington that have been assessed. We have water quality data on only 1,099 water bodies, comprising 3% of the water bodies in the state. Excessive water temperature is the most common water quality problem for Washington, followed by fecal coliform. *

* Impaired water bodies are removed from the 303d list by having total maximum daily loads (TMDLs) set for their water pollutants. The method of reporting polluted waters was changed to whole water bodies from water body segments in 1998.

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 8
Estimate	611			642				
Actual	611			636				
Date Measured	12/31/95			12/31/97				

Quarter 1 Comment

This data was reported to the U.S. Environmental Protection Agency in April, 1996. It is provided here to provide context for this biennium's data.

Quarter 4 Comment

The 1998 303d list has been submitted to the U.S. EPA for its approval. The 636 water bodies listed as impaired comprise 58% of the lakes, streams, rivers and estuaries in Washington that have been assessed. We have water quality data on only 1,099 water bodies in the state, comprising 3% of the water bodies in the state. Excessive water temperature is the most common water quality problem for Washington water bodies, occurring at three hundred and seventeen. Two hundred and eighty-nine water bodies exceed standards for fecal coliform, the second most prevalent problem.

Performance Measure

The cumulative number of water pollution clean up plans (TMDLs) completed by the Department of Ecology and approved by the U.S. Environmental Protection Agency.

A recent legal settlement under the federal Clean Water Act Section 303d requires that Ecology complete 1500+ TMDLs within the next 15 years. (These are in addition to the 197 previously completed.) Ecology will request additional funding to correct these water pollution problems and achieve this legal commitment. Impaired water quality, known to occur in 636 water bodies, is caused by a variety of pollutants. A total maximum daily load (TMDL) is required to address each significant pollutant in each impaired waterbody in order to set maximum pollution loading, legally limit pollutant discharges, implement pollution reduction programs, remove the water body from the list, and satisfy the legal settlement. When selected by initiating governments, TMDL work will be incorporated into watershed management plans under the Watershed Management Act (ESHB 2514).*

* It takes one to eight years to develop a TMDL, depending on its complexity. Thus, completions will increase later in the 15-year settlement time frame. For example, 119 TMDLs are expected to be completed at the Performance Level in 2003.

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Output	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate		197				237		
Actual		197				210		
Date Measured		10/31/97				12/31/98		

Quarter 2 Comment These 197 TMDLs have been completed in an approximately 6 year period with the current funding.

Quarter 6 Comment These TMDLs have been approved by EPA.

Performance Measure The percentage of contaminated sites cleaned up or in the process of being cleaned up.*

* These sites are contaminated with hazardous substances or petroleum products.

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	80%	80%	80%	80%	80%	80%	80%	80%
Actual	80%	80%	80%	80%	80%	80%	80%	81%
Date Measured	9/30/97	12/31/97	3/31/98	6/30/98	9/30/98	12/31/98	4/15/99	7/19/99

Quarter 1 Comment Total Sites: 7,134. Site status: cleaned up: 2,679 (38%); in process: 3,023 (42%); cleanup pending: 1, 432 (20%)

Quarter 2 Comment Total Sites: 7,333. Site status: cleaned up: 2,871 (39%); in process: 2,967 (41%); cleanup pending: 1, 495 (20%)

Quarter 3 Comment Total Sites: 7,444. Site status: cleaned up: 2,935 (39%); in process: 3,005 (41%); cleanup pending: 1,504 (20%).

Quarter 4 Comment Total Sites: 7,564. Site status: cleaned up: 3,019 (40%); in process: 3,048 (40%); cleanup pending: 1,497 (20%).

Quarter 5 Comment Total Sites: 7,748. Site status: cleaned up: 3,294 (42%); in process: 2,938 (38%); cleanup pending: 1,516 (20%).

Quarter 6 Comment Total Sites: 7,911. Site status: cleaned up: 3,399 (43%); in process: 2,959 (37%); cleanup pending: 1,553 (20%).

Quarter 7 Comment Total Sites: 8,078. Site status: cleaned up: 3,496 (43%); in process: 2,998 (37%); cleanup pending: 1,584 (20%).

Quarter 8 Comment Total Sites: 8,119. Site status: cleaned up: 3,546 (44%); in process: 2,993 (37%); cleanup pending: 1,580 (19%).

Performance Measure The percentage of the contaminated liquid contents of single shell tanks that have been transferred to safer double shell tanks to protect groundwater and the Columbia River at the Hanford site by the U.S. Department of Energy (USDOE) and its contractors. The percentage refers to the amount of liquids transferred as part of an interim stabilization effort. Final retrieval of the remaining "non-liquid" tank wastes is scheduled to begin in 2004.*

* Estimates shown are based on USDOE projections. In 1998 the USDOE changed its method for calculating the amount of liquid tank waste retrieved, which resulted in lowering numbers for FY 98 from 44% to the 40% indicated in this report.

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	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	40%	40%	40%	40%	43%	45%	48%	51%
Actual	40%	40%	40%	40%	41%	41%	43%	44%
Date Measured		12/31/97	3/31/98	6/30/98	9/30/98	12/31/98	3/31/99	6/30/99

Quarter 4 Comment

The U.S.DOE's lack of progress is the subject of a pending lawsuit by the state. A settlement could expedite tank transfer activities.

The U.S. Department of Energy has changed its method for calculating the amount of liquid tank waste retrieved, which has resulted in lower totals and estimates than were previously reported for FY 1998, and higher estimates for FY 1999.

Quarter 5 Comment

During Q5, DOE failed to pump liquids at rates proposed in a recent planning document.

Quarter 6 Comment

The state and the Department of Energy (USDOE) have settled, in principle, the threatened lawsuit concerning the USDOE's lack of progress transferring contaminated liquid from single shell tanks to safer double shell tanks. The exact terms of the settlement are currently being negotiated and will be included in a consent decree. The consent decree will require the USDOE to greatly accelerate removal of pumpable liquids from Hanford's single shell tanks over the next five years.

Quarter 7 Comment

The state of Washington and the US Department of Energy (DOE) have entered a consent decree to settle the threatened lawsuit concerning DOE's lack of progress transferring contaminated liquid from single shell tanks to safer double shell tanks. The consent decree requires DOE to remove an estimated 6 million gallons of pumpable liquid wastes remaining in 29 single-shell tanks by September 2004. DOE's Q7 progress is linked directly to the state's efforts to enforce Tri-Party Agreement interim stabilization milestones. Final treatment of tank wastes is planned to begin in 2004.

Quarter 8 Comment

In Q8, the US Department of Energy pumped approximately 206,320 gallons of contaminated liquid from single shell tanks.

Performance Measure

Cubic meters of contaminated solid waste recycled or properly treated, stored and disposed at the Hanford site by the U.S. Department of Energy and its contractors.*

** In this context the term "solid waste" refers to hazardous and mixed waste only. The dangerous waste generated at the industrial facilities on-site is measured in kilograms, not cubic meters, and is not included in this measure.*

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	160,000	107,000	107,000	160,000	180,000	110,000	130,000	140,000
Actual	160,000	107,000	126,000	157,000	180,000	125,000	132,000	140,000
Date Measured		12/31/97	3/31/98	6/30/98	9/30/98	12/31/98	3/31/99	6/30/99

Quarter 1 Comment

Weather conditions support a higher level of waste recovery activity in the spring and summer months.

Quarter 4 Comment

All data for this measure have been revised to reflect the correct conversion factor for converting tons of solid waste into cubic meters. This has resulted in significantly higher totals and estimates than were previously reported.

Quarter 5 Comment

Solid waste disposal is at its peak during the months of July, August and September.

Quarter 6 Comment

Mild weather conditions supported a higher level of waste recovery activity than anticipated.

Quarter 7 Comment

Mild weather in Quarter 7 resulted in more cleanup work being done and more solid waste being treated, stored, and disposed than was originally estimated.

Strategy

Support Sustainable Communities and Natural Resources.

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Performance Measure Percentage of the state's air quality areas that have been redesignated by the U.S. Environmental Protection Agency as attaining national ambient air quality standards.*

* The base year is 1990, when significant changes to the federal Clean Air Act were adopted and 14 of the state's airsheds violated one or more national ambient air quality standard. The data is most useful when viewed as a long term trend.

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate	36%			71%				93%
Actual	36%			36%				36%
Date Measured	5/19/97			6/30/98				6/30/99

Quarter 1 Comment In May 1997 the Portland-Vancouver ozone non-attainment area was officially redesignated to attainment.

Quarter 4 Comment Ecology has completed clean up plans for 5 particulate nonattainment areas. Implementation of the plans has resulted in air quality that meets federal standards. Ecology has applied to the U.S. EPA to have these 5 areas returned to attainment status. EPA approval is pending.

Quarter 8 Comment Monitoring in all areas shows air quality clean enough to allow removal of those areas from the non-attainment list. Recent court actions have delayed the redesignation of seven areas that have fine particulate problems as 'attainment areas.'

Performance Measure The number of bags of litter picked up along state highways by Ecology Youth Corps (EYC).*

* The Ecology Youth Corps (EYC) collects litter along the state's highways per RCW 70.93, Waste Reduction, Recycling and Model Litter Control Act.

Outcome	Fiscal Year 1998				Fiscal Year 1999			
	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Quarter 5</u>	<u>Quarter 6</u>	<u>Quarter 7</u>	<u>Quarter 8</u>
Estimate			60,000				60,000	
Actual			64,947			80,371		
Date Measured			12/31/97			12/31/98		

Quarter 6 Comment Data anticipated in Quarter 7 became available earlier due to development and implementation of a better reporting system which allows faster compilation of the litter collection data. The estimates for this biennium were based on previous experience and increased funding. The 1997 Legislature responded to public concern about perceived increases in litter volumes across the state, and increased funding for Ecology litter crews substantially. Approximately one-eighth of the litter collected in 1998 was recycleable. Over 50 tons of materials, including aluminum, metal, glass and plastic, were recycled.

Performance Measure Percentage of the solid waste stream being recycled.
The statewide recycling rate measures the success of existing recycling programs.*

* A fluctuation between 35 and 40% can be expected over the next few years because of market variations. The fiscal year data reflect activity of the calendar year two years previous (i.e. FY 1999 = CY 1997).

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Estimate		39%				39%		
Actual		39%				33%		
Date Measured		12/31/96				12/31/97		

Quarter 6 Comment

One cause of the decline in the statewide recycling rate was depressed Asian markets. Ecology, the State Solid Waste Advisory Committee, and other stakeholders are discussing what else may be occurring in the solid waste system to lead to a declining rate of recycling.